

Neptune
Labs

FSI Viewer
FSI Showcase



User Manual

FSI Viewer

FSI Showcase

Software:

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NeptuneLabs

FSI Viewer and FSI Showcase

Introduction

FSI Viewer ('Flash based Scaleable Image Viewer') and FSI Showcase based on the same technology have been designed to display zoomable images on the internet requiring low bandwidth only. Using the Macromedia Flash™ browser plug-in the viewers request image data from Single Source Imaging Servers.

Using FSI technology you can present two-dimensional images as well as three-dimensional images consisting of multiple individual images. By using Single Source Imaging Servers only one high resolution source image is required for each image to be displayed.

By using the Macromedia Flash™ plug-in FSI Viewer and FSI Showcase can be integrated almost independently of the browser version. As the penetration of this plugin exceeds by far 90% of all internet users FSI products can usually be used without downloading or setting up a browser plug-in.

By means of a large number of configuration options and optional FSI Skins, FSI Viewer and FSI Showcase can widely be adjusted to integrate seamlessly into your website. Using the FSI Plug-in system you can integrate additional functionality into FSI Viewer and FSI Showcase at runtime without increasing the download size in general.

Thank you for using NeptuneLabs software!

FSI Online Resources - www.fsi-viewer.com

Please be sure to visit www.fsi-viewer.com for regularly updated samples, tutorials and downloads. To access restricted areas on the website you can use the username and password that came with this software package.

Compatibility and Requirements

The FSI products covered in this manual can at present be securely run by eRez Imaging Server from version 2.54, iSeeMedia Zoom Image Server from version 4 and TrueSpectra version 4.1.1.

FSI Viewer requires a Flash™ Plugin version 5 or newer for the display in browsers. If you are using Flash™ 5, NeptuneLabs ZoomCache is required to output the zoom images. This does not apply to eRez Imaging Server, which supports Flash™ 5 plugins without ZoomCache.

To run FSI Showcase, Flash™ version 6 or newer is required.

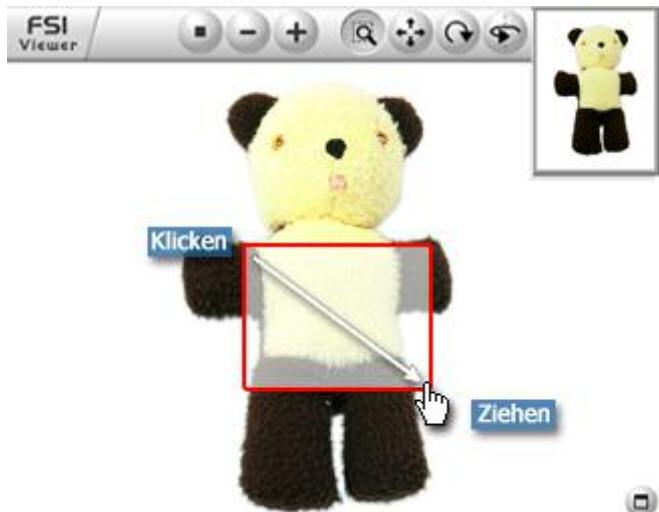
FSI Viewer has been successfully tested with the following software versions:

eRez	-	Imaging Server 2.5.4 – 3.0.0
iSeeMedia	-	ZoomImageServer 4.0 – 4.6
TrueSpectra	-	Image Server 4.1.1 Service Patch 3
Flash™-Plugin	-	5.0.42.0 bis 7.0.19.0

*The presentation may marginally vary depending on the operating system.
If problems arise please check the versions mentioned above and enquire about
newer versions of the FSI products.*



Navigation



The FSI Viewer is navigated by using the menu bar (above) and the mouse directly on the image. For example, you can directly select a segment of the image that you want to magnify.

The mouse functions are determined by the corresponding buttons on the menu bar (magnify, move, rotate, etc.)

The example on the left shows the mouse mode "magnify".

The small survey window (above right) displays the position of the currently selected image segment.

Menu Bar



The menu bar might look different depending on skins or additional plugins.

Main Functions

	Back to Initial View. Undoes scaling, rotating, moving etc. and restores the initial view. (identical with space bar)
	Zoom In
	Zoom Out

Mouse Modes

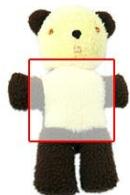
The "Mousemodes" or "MousemodeSelect" plugin is required to display the following mouse mode buttons.

	Mouse - Zoom In Choose this function to enlarge segments with the mouse. Click on the image and drag the frame over the desired segment. Alternatively you can click on the image, without marking a segment. The image will then be magnified in steps. To zoom out in steps, hold down the CTRL-key and click on the image.
	Mouse - Move Choose this functions to move the image with the mouse. Click on the image and drag in the desired direction. To return to the original view, hold down the CTRL-key and click on the image.
	Mouse - Turn Choose this function to turn the image around the z-axis. Click on the image and drag in whatever direction you want to turn the object (to the right or the left). To reset the rotation, hold down the CTRL-key and click on the image.
	Mouse - Rotate (only for 3D presentations) Choose this function to rotate the object around the y-axis or the x-axis if available. Click on the image and drag to the left or to the right. Move the mouse up or down to rotate the object around the x-axis. To reset rotation, hold down the CTRL-key and click on the image.

View

	Hide/Display menu Displays or hides the user interface.
	Information Displays information about the viewer and refers to a configurable help page (→Parameter HelpURL).

Survey Window



In the survey window you can see a miniature presentation of the whole image. The segment which is currently viewed is framed in red. In the survey window you can change the current segment either by dragging the frame, or by clicking on the desired area of the image.

Keyboard

FSI Viewer and FSI Showcase can also be controlled with the keyboard. The list below shows which keys have what function. As most function keys are in the Num field, it has to be activated before use.

Key	Function
Num 5, spacebar	 Back to original view
Num 4, left arrow	 Move to the left
Num 6, right arrow	 Move to the right
Num 8, up arrow	 Move up
Num 2, down arrow	 Move down
Num 1	 Turn around the z-axis to the left
Num 3	 Turn around the z-axis to the right
Num 7	 Rotate around the y-axis to the left (3D only)
Num 9	 Rotate around the y-axis to the right (3D only)
Num /	 Rotate around the x-axis upwards (3D only), or previous view
Num *	 Rotate around the x-axis downwards (3D only), or previous view
Num 0	 Hide/display user interface
D	--- If you have activated the debug mode, you can hide or display the debug window using this key.
I	--- Outputs information about the current image segment and further status information in the debug window. (e.g. for InitialView).

NeptuneLabs FSI Viewer Installation

For correct installation it is necessary that when ordering you name the URL under which FSI Viewer will be stored on your webserver. Due to security limitations of the Flash plugin the exact address of the viewer components is required.

It is recommended to create a sub-index for the viewer in the root-index of your webserver.

E.g. in index "/fsi".

This enables the URL of the viewer to remain very short, regardless in which path the respective website is located.

E.g.: <PARAM NAME="movie" VALUE="/fsi/fsi.swf?cfg=image1">

Example of an index structure for the Domain "http://www.foobar.com":

Example - index structure

```
http://www.foobar.com/fsi
languages/
plugins/
  default.fsi
  fsi.swf
  fsi_main.nlm
  fsi_main_mx.nlm
  fsi_skin.swf
  fsi_skin_mx.swf
  zoom_module.nlm
  zoom_module_mx.nlm

http://www.foobar.com/fsi/config
  image1.fsi
  image2.fsi
  ...

http://www.foobar.com/fsi/samples
  test.html
  testimage.fsi
  ...
```

For multiple applications of FSI Viewer or FSI Showcase a subdomain can be useful to address the FSI files.



Example - Subdomain

`http://fsi.foobar.com/`

Installation Steps

Step 1

Copy the FSI Viewer or FSI Showcase files using an FTP program into the corresponding index on your webserver.

Please note that the files have to be transferred in binary mode.

Important:

For security reasons FSI Viewer and FSI Showcase are always restricted to one specific end URL and will only function there!

Step 2

Create or edit the FSI files with a text editor and modify the _default.fsi file to your needs. Please refer to the chapter "Automated Implementation of Images" if you plan to integrate a large number of images.

Step 3

Add the HTML source for a Flash movie to your website and enter as a film URL the path to the file "fsi.swf" or "fsi_showcase.swf" respectively with the desired parameters as a HTTP query.

```
<PARAM NAME="movie" VALUE="fsi.swf?cfg=fsitest.fsi&debug=1">
```

Use the files in the "samples" folder of the installation archive as a guide line.

For further information please refer to the following pages.

NeptuneLabs FSI Viewer

HTML-Source Code

The NeptuneLabs FSI Viewer is integrated into a HTML page through an <object> - tag, like an ordinary Flash-film.
A Flash plugin version 5 or newer is required.

Object Tag

To display a Flash-film an <Object> tag has to be specified when using Internet Explorer 5 or newer. Older browsers or browsers without ActiveX support use the obsolete <Embed> element instead.

Structure (variable data printed in bold and square brackets):

Example - HTML integration without considering old browsers

```
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swf1
ash.cab#version=5,0,42,0" width="[Width]" height="[Height]">
<PARAM NAME="movie" VALUE="[URL and Parameter]">
<PARAM NAME="bgcolor" VALUE="[Background color]">
<PARAM NAME="menu" VALUE="false">
</OBJECT>
```

Embed Tag

For browsers (e.g. Netscape 4.x), that don't support<object>-tag, an additional <embed>-tag with corresponding parameters is required.

Example - HTML integrations for current and old browsers

```
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swf1
ash.cab#version=5,0,42,0" width="[Width]" height="[Height]">
<PARAM NAME="movie" VALUE="[URL and Parameter]">
<PARAM NAME="bgcolor" VALUE="[Background color]">
<PARAM NAME="menu" VALUE="false">
<EMBED TYPE="application/x-shockwave-flash"
PLUGINSPAGE="http://www.macromedia.com/shockwave/download/index.cgi?P1
_Prod_Version=ShockwaveFlash" SRC="[URL and Parameter]"
WIDTH="[Width]" HEIGHT="[Height]" BGCOLOR="[Background color]"
MENU="false"></EMBED>
</OBJECT>
```

Explaining Variable Parameters

[Width]	Width of the viewer in pixel (or optional in percent with flash 6 or newer)
[Height]	Height of the viewer in pixel (or optional in percent with flash 6 or newer)
[Background color]	Background colour, hexadecimal (e.g. #FFFFFF for white)
[URL and parameter]	The address to the FSI Viewers and the parameters as a query. For information about these parameters please see section "FSI Parameters".

For further possible parameters or XHTML configuration options, please refer to any Flash documentation or renowned HTML design websites.

NeptuneLabs FSI Viewer

FSI Parameters

The parameters can be transferred using XML- configuration files and/or a HTTP query attached to the URL (→Automated Implementation of Images).
Parameters within the query are specified in the following form:

Parameter1=Value1&Parameter2=Value2...

- Characters that are not URL- compatible such as "/" and "&" within the values have to be URL-encoded.

In the simplest case, you only state the relative path to the configuration file within the <object>-Tag.

Example - Implementing FSI Viewer using the object Tag

```
<PARAM NAME="movie" VALUE="fsi.swf?cfg=[relative path to FSI-file]">
```

The configuration file "_default.fsi" -which has to be located in the same folder as the viewer- will always be evaluated first. You can store image specific parameters in individual *.fsi files. Parameters within these files supersede the "_default.fsi" parameters. Parameters within the query supersede the parameters of the *.fsi files.

Hierarchy of Configuration Parameters:

- I. HTTP Query
- II. image.fsi
- III. _default.fsi

It is recommended to store parameters which are the same for a large number of images in the file _default.fsi. Subsequent changes can then be made more easily. This is especially useful for the image server address (→FPXBase) and the path to the image specific FSI configuration files (→FSIBase).

If you want to display an image with minimal variation in configuration, it is recommended that for both views the same FSI configuration file is used, and the varying parameters are transferred by query.

Example - parameter transfer to the FSI Viewer

View 1:

```
...
<PARAM NAME="movie" VALUE="fsi.swf?cfg=flower">
...
```

View 2:

```
...
<PARAM NAME="movie" VALUE="fsi.swf?cfg=flower&NoNav=1">
...
```

Please note that the configuration files and the viewer files are cached by the browser, so that if changes in the files occur the browser cache must be deleted. Parameters that are transferred within a query and image specific FSI files are an exception if the Debug mode is activated (→Debug).



Format of Configuration Files (*.fsi)

The configuration files are created in XML- format and can be edited with any text editor.

The basic structure with the 4 main groups is:

```
<fsi_parameter>
  <Viewer>
  </Viewer>

  <FPX>
  </FPX>

  <Plugins>
  </Plugins>

  <Options>
  </Options>

</fsi_parameter>
```

The parameters within the groups have to be provided in the format:

<PARAMETER value="VALUE" />

Example - specifying the source image; relative addressing

```
<FPX>
  <Src value="image.fpx" />
</FPX>
```

Within the *.fsi files group prefixes such as "Viewer" or "FPX" are not required. Instead of e.g. "FPXWidth" please use only `<Width value="..." />` inside the `<FPX>` group.



Please note that all values must be written in quotation marks.

The following value types are possible:

Type	Example
Number	"90"
String	"ZoomIn"
URL	"http://www.fsi-viewer.com/"
Bool	Either "0" / "1" or "true" / "false"

Like in HTML-Format, you can comment on or deactivate sections of the FSI files using the comment syntax.

Example - comments
<pre><FPX> <!-- This is a comment --> <Src value="image.fpx" /> <!-- The following section will be ignored --> <!-- <Src value="image.fpx" /> --> </FPX></pre>

Required Parameters

The following parameters are essential and must be specified.

Please refer to the chapter "**Retrieving Parameters Automatically**" for information on how to enable FSI Viewer to retrieve most of the following parameter values automatically.

CFG	
Description:	Relative path to configuration file
Syntax:	fsi.swf?cfg=[FSI_Name] (without suffix)
Default:	---
Context:	"movie" parameter of Object Tag, "src" parameter of Embed Tag

This states the relative path to the .fsi-configurations file.

Only useful within the query.

The ending ".fsi" does not have to be entered. (→FSIBase)

Example - opening FSI Viewer by stating an FSI file

```
<PARAM NAME="movie" VALUE="fsi.swf?cfg=foobar">
```

In this case the FSI Viewer first searches for the _default.fsi file in the installation folder where the file fsi.swf is located and evaluates the configuration parameters.

The optional parameter "**FSIBase**" from the _default.fsi file is then used as the path specification in order to search in the correct index for a FSI configuration file with the name "foobar.fsi".

DefaultCFG	
Description:	Relative path to an alternate default configuration file
Syntax:	fsi.swf?cfg=[FSI_Name] (without suffix)
Default:	_default.fsi"
Context:	"movie" parameter of Object Tag, "src" parameter of Embed Tag

Relative path to an alternate default configuration file.

Only useful within the query.

The ending ".fsi" does not have to be provided.

ServerType	
Description:	Image server type
Syntax:	String – ZIS TrueSpectra TrueSpectra Bridge
Default:	ZIS
Context:	<FPX>
Query:	FPXServerType

Please enter the value "erez" for the eRez Imaging Server, for the Zoom Image Server of iSeeMedia please enter the value as "ZIS". For the Image Server of TrueSpectra please enter the value "TrueSpectra" if you are using the stand alone server and "TrueSpectra Bridge" if you are using the Bridge API.

ServerTemplate	
Beschreibung:	Real-time template of the imaging server
Syntax:	String – Name of the template
Default:	fsi
Kontext:	<FPX>
Query:	FPXServerTemplate
Version:	2.1.0 or higher

This parameter is only valid when using eRez Imaging Server and specifies the name of the real-time template used when accessing the Imaging Server. Using these templates you can specify e.g. the image compression, maximum image dimensions and watermarks.

Src	
Description:	URL of the FPX image to be displayed
Syntax:	URL
Default:	---
Context:	<FPX>
Query:	FPXSrc

Specify either a relative URL or the absolute URL of the source image on the Imaging Server to be displayed (→FPXBase).

With some Imaging Servers it is not necessary to use source images in FPX format. Please refer to the documentation of your Imaging Server for more details on the supported image formats.

Example 1 - partial (relative) Addressing

```
<FPX>
    <Src value="project/foobar.fpx" />
</FPX>
```

Example 2 - absolute Addressing

```
<FPX>
    <Src value="http://www.domain.com/fif=project/foobar.fpx" />
</FPX>
```

Width and Height	
Description:	Source image dimensions
Syntax:	Number in pixels
Default:	---
Context:	<FPX>
Query:	FPXWidth and FPXHeight

Necessary parameters that specify in pixels the width and height of the source image. Please refer to the chapter "**Retrieving Parameters Automatically**" for information on automatic source image dimension recognition.

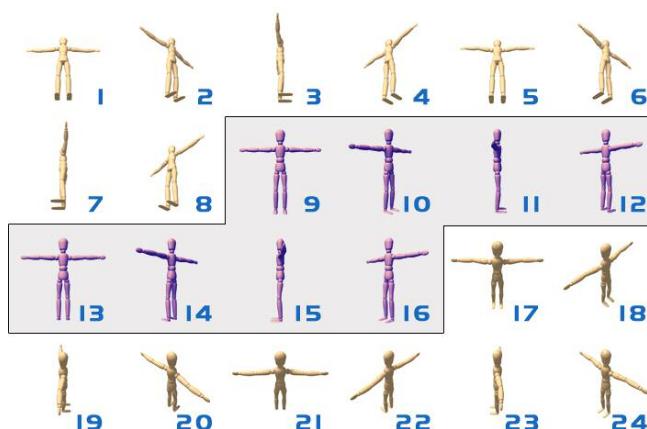
Example - width and height specifications of a source image

```
<FPX>
...
<Width value="3330" />
<Height value="4660" />
...
</FPX>
```

TilesX and TilesY

Description:	Specification of individual images for 3D representations
Syntax:	Number
Default:	1
Context:	<FPX>
Query:	FPXTilesX and FPXTilesY

Number of individual images in the source image in x- or y- direction respectively.



Example: 3D image containing 6 x 4 tiles organized in in 3 scenesets.
(Only necessary for 3D views or multiple scenes)

Even in an 'asymmetrical' scene order - as in the example to the left -the number of tiles would be in the x direction 6 and in the y direction 4.

With the parameter SceneSets the

3 scenes can then be defined.

The image sequence can be freely determined.

Example - Definition of the 3 scenesets

```
<FPX>
  ...
  <TilesX value="6" />
  <TilesY value="4" />
  ...
</FPX>
<Options>
  ...
  <SceneSets value="1-8,9-16,17-24" />
  ...
</Options>
```

Optional Parameters

FSIBase

Description:	Path to the FSI files
Syntax:	Relative path specification
Default:	---
Context:	<Options> in _default.fsi

Enter the relative path from FSI Viewer to the image specific FSI files here.
When this parameter is specified the path is added to the parameter CFG.

Example 1 - Definition of the FSIBase within the _default.fsi file

```
<Options>
  ...
  <FSIBase value="config/" />
  ...
</Options>
```

Example 2 - specifying the FSI files with the CFG parameter

```
<OBJECT ...>
  ...
  <PARAM NAME="movie" VALUE="/fsi/fsi.swf?CFG=imagedir/image1">
  ...
</OBJECT>
```

The parameter "CFG" is expanded with the "**FSIBase**" to:
"config/imagedir/image1.fsi"

FPXBase

Description:	Image Server URL
Syntax:	URL
Default:	---
Context:	<Options> in _default.fsi

Domain and path to the image server.

If the "**FPXSrc**" parameter is entered relatively (without http://...), "**FPXbase**" is added to the path.

Examples - FPXBase application

Definition of the FPXBase within the file _default.fsi:

```
<Options>
  ...
  <FPXBase value="http://domain.com/fif=project/" />
  ...
</Options>
```

Specification of the FPXSrc within the FSI files:

1) The FPXBase parameter is used for relative addressing:

```
<FPX>
  ...
  <SRC value="image.fpx" />
  ...
</FPX>
states complete address:
http://domain.com/fif=project/image.fpx

2) FPXBase is not used for absolute addressing:
<FPX>
  ...
  <SRC value="http://anotherdomain.com/fif=project/image.fpx" />
  ...
</FPX>
```

Width and Height

Description:	Size of the Flash movie
Syntax:	Number in pixels or "auto"
Default:	auto
Context:	<Viewer>
Query:	ViewerWidth and ViewerHeight

Width and height of the viewer in pixel.

These specifications are **only necessary for Flash™ 5 plugins** and must match with the width and height values in the <object> or <embed> Tag.

Providing incorrect values will lead to a skewed or incorrectly scaled presentation of the Viewer as far as Flash™ plugins version 5 are concerned.

For Flash MX or higher you can either leave out the parameters or enter "auto".

Debug	
Description:	Activate debug mode
Syntax:	Bool
Default:	false
Context:	<Options>

In debug mode a debug window with status information is displayed.

You can show or hide this window using the "D" key.

If the debug mode is activated, caching of subsequently loaded FSI files by the browser, is prevented. This allows you to easily test changes to your FSI files without having to delete the browser cache each time. The parameters of the _default.fsi are always cached regardlessly.

Example - display in debug window

```
FSI Viewer 2.1
Build 270204
Flash Version:
WIN 6,0,50,0
-----
Reading Default Configuration:
http://fsi.domain.com/_default.fsi...ok
Using FpxBase:
http://imageserver.domain.com/fif=
Viewer Size: 400x360
-----
Loading Skin and FSI Module:
Core loaded.
Skin loaded.
FSI Skin Template 2.0

Loading 1 Plugin(s):
1) from 'languages/english.swf'...ok
   Plugin 'English ToolTips' loaded.
All Plugins loaded.
-----
-- Initializing Viewer --
ServerType: EREZ
Found 1 SceneSet(s):
 - Set 1: 1,2,3,4,5,6,7,8,9,10,11,12

Accessing Image:
http://imageserver.domain.com/fif=phone.fpx
-----
Loading Time: 3.6 sec
--- IMAGE INFO ---
Image Section:
1, 1, 0, 0, 1, 1, 0
Total Traffic: 68114 Bytes
Requests: 24
ViewTime: 4 sec
[Press i to refresh]
```

Language	
Description:	Viewer language
Syntax:	String
Default:	english
Context:	<Options>
Version:	FSI Viewer 2.0 or higher / FSI Showcase 2.15 or higher

Defines the language of viewer tooltips.

Possible values depend on the language files located in the sub-index "/languages" of the FSI Viewer installation path. To specify a language, please enter the filename without the file extension, e.g. "german".

Some language files contain the pattern "_font" in the filename. These files include a corresponding font for the specified language. Though the size of these files is greater than those without a font, the included font ensures correct display on systems with charsets not matching the selected language.

NoNav	
Description:	Hide the survey window
Syntax:	Bool
Default:	False
Context:	<Options>

If this value is set to true, the survey window with the miniature image won't be displayed.

For FSI Showcase this parameter causes the thumbnail not to function as a navigator.

MenuAlign	
Description:	Alignment of the menu bar
Syntax:	String
Default:	TL
Context:	<Options>

Possible values:

- | | |
|-----------|----------------|
| TL | (above left) |
| TR | (above right) |
| BL | (bottom left) |
| BR | (bottom right) |

HideUI	
Description:	Hide user interface
Syntax:	Bool
Default:	false
Context:	<Options>

After loading FSI Viewer the menu bar does not display. A menu opener button is displayed instead which shows how the menu can be displayed.

This option is especially usefull when an image is meant to look like an ordinary image, or when there are many FSI Viewers to be seen on one website.

HelpURL	
Description:	URL of custom help page
Syntax:	String
Default:	http://help.fsi-viewer.com
Context:	<Options>
Version:	1.3.0 or higher

If you want to create an individual help page for your FSI Viewer or FSI Showcase enter the complete (absolute) URL to this page using this parameters.

HelpURLTarget	
Description:	Target(frame) of the help page
Syntax:	String
Default:	_blank
Context:	<Options>
Version:	1.3.0 or higher

Using this parameter you can determine the target name of the browser window if a user opens the help page. "_blank" is preset which causes the opening of a new browser window.

InitialView

Description:	Initial image segment
Syntax:	SceneSet, Scene [left, top ,right, bottom, rotation]
Default:	1,1,0,0,1,1,0
Context:	<Options>

Sets the image segment that is initially displayed.

The first two parameters are required as they specify the SceneSet and the Scene. For 2D image both of these values are always 1.

The other parameters are optional and specify the image segment and the rotation around the z-axis.

Please use the "ViewEdit" plugin to retrieve the corresponding value for this parameter.

Example - InitialView

```
<Options>
  ...
  <InitialView value="1,5,0,0,0.25,0.25,90" />
  ...
</Options>
```

The example displays the above left quarter of the 5th scene in the 1st SceneSet rotated 90 degrees to the right.

InitialViewPersistent

Description:	Keep the InitialView as default view
Syntax:	Bool
Default:	false
Context:	<Options>
Version:	2.0.0 or higher

If this parameter is activated, clicking the "Reset" button will display the image section defined by the InitialView parameter instead of the entire image.

If this parameter is set to "false", the initial view will be active on startup, but pressing the Reset button will reset the image to the default view.

InitialAction	
Description:	Action on startup
Syntax:	String
Default:	---
Context:	<Options>

Specifies an action to be automatically executed on startup.
The action is repeated until the user presses a button or key.
During the action no image details are loaded.

Possible values:

NextScene	(rotate around the y-axis to the right, 3D only)
PreviousScene	(rotate around the y-axis to the left, 3D only)
NextSceneSet	(rotate around the x-axis to the right, 3D only)
PreviousSceneSet	(rotate around the x-axis to the left, 3D only)
RotateRight	(rotate around the z-axis to the right, 3D only)
RotateLeft	(rotate around the z-axis to the left, 3D only)
ZoomIn	(zoom in)
ZoomOut	(zoom out)

InitialActionDelay	
Description:	Speed of the initial action
Syntax:	Number
Default:	3
Context:	<Options>

Specifies the speed of the InitialAction.
Possible values are integer values greater than 0.

1	highest speed
>1	slower

InitialActionPersistent	
Description:	Repetition of initial action
Syntax:	Boolean
Default:	False
Context:	<Options>
Version:	2.2.0 or higher

Initial action restarts on each 'reset' command (button or keyboard) if set to true.

InitialMouseMode

Description:	Mouse mode after starting
Syntax:	Number
Default:	0
Context:	<Options>

Specifies the selected mouse mode on startup.

Possible values:

- 0** (Zoom)
- 1** (Drag)
- 2** (Rotate in scenes)
- 3** (Rotate 2D)

Some plugins add additional mouse modes. (→ Plugin Reference)

HandCursor

Description:	Shape of the mouse cursor
Syntax:	Bool
Default:	True
Context:	<Options>
Flash Version	Has no effect with Flash versions prior to version 6

If you set this parameter to "true" the default arrow cursor will be used instead of the hand cursor when hovering over the image or the survey window.

NoZoomLimit

Description:	No Zoom limit
Syntax:	Bool
Default:	False
Context:	<Options>

Allows magnification beyond the actual resolution of the source image. If you zoom beyond the available resolution the viewer interpolates the presentation and the image may become less clear.

Animation	
Description:	Animation quality
Syntax:	String
Default:	BEST
Context:	<Options>

Specifies the quality during animations (transitions).
The lower the quality, the smoother the animations.

Possible values:

- none** (no animation)
- low** (low quality, high speed)
- medium** (good quality and speed)
- high** (very good quality, slower speed with slow computers)
- best** (best quality, slower speed with slow computers)

AnimationSpeed	
Description:	Animation speed
Syntax:	Number
Default:	50
Context:	<Options>

Specifies the speed of the zoom and scene animations.

Possible values between 1 and 100:

- 1** (very slow)
- 100** (very fast)

No animation: see parameter "**Animation**"

Effects	
Description:	Image effects
Syntax:	String
Default:	---
Context:	<Options>
Version:	1.3.0 or higher

This is a very powerful command for the manipulation of the image delivery of an

imaging server. By using this parameter you can achieve various effects - depending on the capabilities of the server.

The parameter can contain different effects. Every effect must be separated by an ampersand (&) symbol like in HTTP queries.

One of the most important effects is "qlt" or "quality". With this command you direct the JPEG compression of the server. If no effect is specified, the default settings of the server are valid.

Possible values between 1 and 100:

1 (extremely low quality, heavily compressed image)

100 (extremely high quality, uncompressed image)



practical values are between 50 and max 90

Example – qlt=10

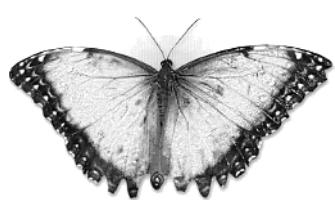


Example – qlt=90



Other commands change, for example, the color saturation, tone or contrast. Please refer to your Imaging Server documentation for a complete description of available commands.

Example – saturation=0



Example – hue=180&cnt=1.4



ZoomCache	
Description:	URL of the ZoomCache
Syntax:	URL
Default:	---
Context:	<Options>

If you use NeptuneLabs ZoomCache, please specify the URL of the ZoomCache server here. If you haven't installed this yourself, you can receive this URL and a ZoomCache ID from your image server partner or ZoomServer consultant.

ZoomCacheID	
Description:	ID of the ZoomCache access profile
Syntax:	String
Default:	---
Context:	<Options>

When using the NeptuneLabs ZoomCache enter the name of the access profile for your images here. You may have several profiles i.e. if you use watermarking or different Image Servers.

ZoomCache5Only	
Description:	Only use ZoomCache with Flash 5 plugins
Syntax:	Bool
Default:	false
Context:	<Options>

Use ZoomCache only for Flash-Plugins of Version 5.

When using watermarking, save functions or other functions of ZoomCache this parameter must have the value 0 or false to enable access to ZoomCache for all plugin versions.

SceneSets	
Description:	Scene sequence definition (3D)
Syntax:	String
Default:	1 - nTiles
Context:	<Options>

With this parameter you can define the SceneSet for images with several scenes (→TilesX, TilesY). This sets the order of the scenes to be displayed.

A sceneset containing all scenes (image tiles) will be created if no sets are defined.

In the viewer the scenes are selected with the mouse in the x direction and the SceneSets in the y direction.

The individual sets are separated with ";" (semicolon).

Scenes within the sets are separated with "," (comma) and specify the 1-based index of the image from left to right, up to down up to the total number of scenes (TilesX x TilesY).

Instead of individual scenes you can also specify scene ranges, e.g. "5-10".

If you leave out the start or the finish of a scene range, 1 or respectively the last scene number will be assumed. If you enter the field with "->" the field from the first number to the last number plus the first scene up to the second number will be assumed.

Example - Definition of multiple scenes and scenesets

```
<Options>
  ...
  <SceneSets value="2,3,5-10;10-1;5-;8->3" />
  ...
</Options>
```

The example defines 4 scenesets in total. Assumption: The source image is created from 10 individual images (scenes), 5 in a row, two rows.

This leads to the following image order for the individual scenes:

Set 1 - Scenes: 2,3,5,6,7,8,9,10

Set 2 - Scenes: 10,9,8,7,6,5,4,3,2,1

Set 3 - Scenes: 5,6,7,8,9,10

Set 4 - Scenes: 8,9,10,1,2,3

If the Debug mode is activated the SceneSets are displayed in the debug window during the initialization.

See also TilesX and TilesY.

NoSceneAnimation

Description:	No SceneSet animations (3D)
Syntax:	Bool
Default:	false
Context:	<Options>

If this option is activated the transition between scenes and SceneSets is not animated. This can be usefull if the different scenes present different states of an object instead of a rotation.

NoSetLoop

Description:	No 360° rotation around the y-axis (3D)
Syntax:	Bool
Default:	false
Context:	<Options>

The first and the last SceneSet will be considered the end points.
(no complete rotation, e.g. for rotation with less than 360°)

NoSceneLoop

Description:	No 360° rotation around the x-axis (3D)
Syntax:	Bool
Default:	false
Context:	<Options>

The first and last scene in the sets will be considered the end points. (no complete rotation, e.g. for rotation with less than 360°)

TilePaddingX and TilePaddingY

Description:	Crops scene images by a given number of pixel
Syntax:	Number (pixel) or percent
Default:	0
Context:	<FPX>
Version:	2.2.0 or higher

Specifies a positiv number of pixel that each source scene image (2D and 3D) will be cropped by. This parameter can be used to eliminate flickering image margins with 3D objects that contain polychrome backgrounds.
You can specify the padding either absolutely as a number of pixel or in percent of the source image.

ScenePreload	
Description:	Load scenes in high resolution (3D)
Syntax:	Bool
Default:	False
Context:	<Options>

If this parameter is activated all scenes will be loaded on startup in high resolution, otherwise preview images will be loaded with lower resolution. This parameter can majorly influence loading times and traffic volume.

Setting this parameter to false leads to faster startup times and scene images will be loaded on demand.

NoImageBlend	
Description:	Subsequently loaded image details display without transition
Syntax:	Bool
Default:	False
Context:	<Options>
Version:	1.2.0 or higher

If this parameter is activated, subsequently loaded image details are displayed abruptly without transition.

IgnoreQuery	
Description:	Ignore all parameters passed via query (except cfg)
Syntax:	Bool
Default:	False
Context:	<Options>
Version:	2.0.0 or higher

If this parameter is activated, the viewer ignores all parameters passed via HTTP-query except for the cfg parameter.

This way you can disable modifying the FSI configuration by query.

TileSizeX and TileSizeY	
Description:	Size of image detail tiles
Syntax:	Number in pixel or in percent of the viewer size
Default:	50%
Context:	<Options>
Version:	2.3.0 or higher

Specifies the size of loaded image details (image tiles). The value can be defined relativ to the viewer size (e.g. "25%") or using absolut pixel values (e.g. "256"). The default value of 50% means that each image tile is one quarter in size of the entire viewer. This way a maximum of 9 image tiles is required to display the selected image section.

Please do not change this value unless you are certain that this is necessary and you are aware of possible consequences:

- Defining smaller image tiles reduces the overall viewer performance and increases the number of requests and thus the imaging server load.
- Defining larger image tiles might lead to increased traffic and decreased download performance as more image data than actually required for a certain image section will be loaded.

ConcurrentRequests	
Description:	Number of simultanious image requests
Syntax:	Number
Default:	2
Context:	<Options>
Version:	2.3.0 or higher

Specifies the number of image details (image tiles) that are being requested simultaniously.

Please do not change this value unless you are certain that this is necessary and you are aware of possible consequences:

- Increasing this value might lead to increased imaging server load
- Decreasing the value will decrease the download performance

ZoomLevelFrequency

Description:	Number of ZoomLevels
Syntax:	Number
Default:	2
Context:	<Options>
Version:	2.3.0 or higher

To enable effective caching of image data FSI Viewer does not load image data for every level of magnification. Instead FSI Viewer uses zoom levels to determine when to load image data and when to scale the image by software.

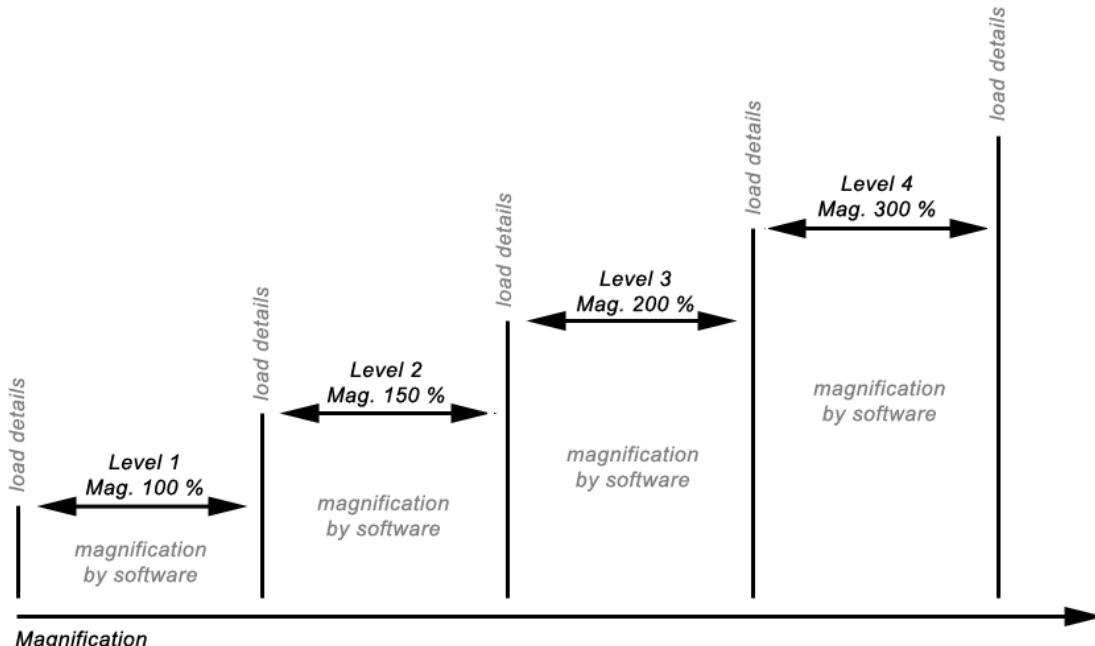
By modifying this value you can define the distance between these zoom levels.

Please do not change this value unless you are certain that this is necessary and you are aware of possible consequences:

- Defining higher values will instruct FSI Viewer to load image data more frequently. This will decrease the number of cache hits and increase data traffic, On the other hand higher values increase image quality as software image scaling will be reduced.
- Defining smaller values increases cache hits and decreases the data traffic volume. Lower values might lead to reduced image quality though.

Possible Values

Any integer or floating point number greater or equal to 1.



The figure above displays a zoom level frequency of 2.

3D Views and 2D Images with Multiple Views

For presentations consisting of multiple individual images the number of horizontally and vertically ordered images must be specified (→TilesX and TilesY).

Every individual image (Tile) will be called a scene in the following. Multiple scenes will be referred to as SceneSets. Each SceneSet may contain an unlimited number of scene sequences. (→SceneSets)

The user can swap between the individual scenes of a SceneSet in the x direction by using keys "7" or "9" in the num block or using the mouse mode "rotate".

The user can swap between the individual SceneSets in the y direction by using keys "/" and "*" in the num block or using the mouse mode rotate.

If the TilesX or TilesY parameters are defined for a source image, but no SceneSet is defined, a SceneSet will be created containing all the scenes from left to right, top to bottom.

Details on the definition of SceneSets can be found in the section "**NeptuneLabs FSI Viewer - Parameters**".

If you are not sure how many images are defined in your source image in the x and y direction, firstly enter the value 1 for **TilesX** and **TilesY**. In the viewer you will then find an overview of your whole FPX image structure.

Obsolete FSI Viewer Parameters

The following parameters are not available anymore:

ImageQuality since FSI Viewer 1.3.0, see Effects parameter instead
MenuX and MenuY since FSI Viewer 2.0.0, see Plugin "NavExtension" instead

NeptuneLabs FSI Viewer Plugins

FSI Plugins extend the FSI Viewer or FSI Showcase functionality and can be included dynamically at runtime.

Plugins are available from version 2.0 of the Viewer and Showcase.

Depending on the plugin additional buttons might be added to the menu bar. The sequence of these buttons can be defined by the sequence of the plugin definitions inside the <Plugins> section of the configuration file.

Using Plugins

To include a plugin you simply list the desired plugins in the <Plugins> section of the .fsi configuration file (or _default.fsi).

The required plugin files are located in the "/plugins" folder of the "/fsi" directory.

Example – Using FSI Plugins

```
<fsi_parameter>
...
<Plugins>
    <Plugin src="mousemodes" />
    <Plugin src="history" />
</Plugins>
...
<fsi_parameter>
```

The "Src" attribute specifies the plugin to be included:

Src	
Description:	Name of the plugin
Syntax:	String
Default:	---
Context:	<Plugins>
Version:	2.0.0 or higher

This attribute defines the name of the plugin, e.g. "history".
The value has to be stated without the file extension ".swf".

Example – Using the Src Parameter

```
<Plugin src="mousemodes" MenuOffset="10" />
```

It is not possible to integrate plugins by query. You may deactivate specific plugins instead. (→Deactivating plugins).

Deactivating Plugins

To disable already integrated plugins (e.g. plugins defined in the _default.fsi file) you can set a parameter with the name of the plugin and a value of "false" to the <Options> section of your configuration file or submit a corresponding parameter via query.

Example – Disabling History Plugin

```
<Options>
...
<History value="false" />
...
</Options>
```

or by HTTP query:

Example – Using a Query to disable History Plugin

```
<Object ...
<PARAM NAME="movie" VALUE="fsi.swf?cfg=image.fsi&history=false">
...
</Object>
```

Plugin Parameters

Plugin parameters are defined as attributes of the <Plugin> tag.

Please note that some plugins might require specific attributes or even entire XML sections in the configuration file to work properly. For information on a specific plugin please refer to the Plugin Reference or see the corresponding *.pdf document in the directory "/docs/plugins".

Example – Defining plugin parameters

```
<Plugins>
...
<Plugin src="navextension" MenuOffset="10" visible="true" />
...
</Plugins>
```

Providing Plugin Parameters by Query

To provide plugin parameters by query you have to prefix the corresponding parameter name with the name of the plugin.

plugin_parameter=value

Example – Providing plugin parameters via HTTP query

```
fsi.swf?navextension_visible=true&history_length=10
```

The example above sets the "visible" parameter of the "NavExtension" plugin to "true" and the "length" parameter of the "History" plugin to "10".

NeptuneLabs FSI Viewer

Retrieving Parameters Automatically

Depending on the type of imaging server being accessed, FSI Viewer is able to retrieve some image specific parameters automatically. The following table show the parameters than can be retrieved automatically:

	eRez Imaging Server	Iseemedia Imaging Server	True Spectra Imaging Server
FPXWidth	Yes	Yes	Yes
FPXHeight	Yes	Yes	Yes
FPXTilesX	Yes (IPTC data)	---	---
FPXTilesY	Yes (IPTC data)	---	---
SceneSets	Yes (IPTC data)	---	---

When will these values be automatically retrieved?

FSI Viewer tries to retrieve the parameters FPXWidth and FPXHeight from the server if the values have not been manually defined. If the server delivers additional parameters (e.g. FPXTilesX, FPXTilesY) these parameters will only get effective if they have not been defined manually.

Requirements for Automatic Parameter Supply

2. Cross-Domain Access

As Flash movie clips can generally not access data across domain boundaries, FSI Viewer has to be setup to the same domain / IP address as the imaging server.

For imaging servers that integrate into common webbrowsers (eRez, TrueSpectra bridge) this can easily be accomplished by setting up FSI Viewer to a subdirectory of the webserver.

For Imaging Servers delivering images through their own server engine the following solutions apply:

- Setting up FSI Viewer to a webserver on the same IP as the Imaging server, using a different port (e.g. port 8080)
- Using NeptuneLabs ZoomCache to route FSI Viewer requests
- Setting up FSI Viewer to a subdirectory of the imaging server that is able to deliver standard file types (e.g. 'servercode' of the Iseemedia Imaging server)

3. Preventing Security Popups of Flash MX 2004™ plug-ins

From Flash MX 2004™ Macromedia modified the security model of Flash plug-ins regarding the crossdomain policy. To avoid a security message popping up when FSI Viewer tries to retrieve data from the imaging server you have to add an XML file to the **root directory** of the imaging server being requested. The file contains information about domains that are allowed to retrieve data from the specific domain and has to be named '**crossdomain.xml**'.

Example – crossdomain.xml

```
<?xml version="1.0" encoding="iso-8859-1"?>
<cross-domain-policy>
  <allow-access-from domain="*" secure="false" />
</cross-domain-policy>
```

Please refer to the Macromedia® documentation for more information regarding 'crossdomain security'.

NeptuneLabs FSI Viewer

Automated Implementation of Images

Rather than creating individual .fsi files for each image it is recommended to provide all FSI parameters via HTTP queries appended to the FSI Viewer URL when implementing large numbers of images.

As some browsers require the obsolete <embed> tag, all parameters have to be set twice. (→HTML-Source Code).

Using the → Automatic Parameter Supply feature you can omit almost all image specific parameters, as FSI Viewer automatically requests these parameters directly from the imaging server. (→ Retrieving Parameters Automatically).

It is recommended to use serverside script like ASP, PHP, JSP, Perl, etc. when implementing large numbers of images. All subsequent code examples in this section refer to PHP, but can be easily adapted in any other serverside scripting language.

Steps to be taken when using large numbers of images:

1. Defining default parameters

Provide as many recurring parameters as possible in the **_default.fsi** file.

This way you don't have to pass these parameters via query.

The most important parameter is FPXBase, as this parameter enables you to subsequently define FPXSsrc parameters using relative addressing.

If there are some images that require different parameter values than defined in the **_default.fsi** file, you can still overwrite the default setting by passing the value via query.

2. Creating image specific URLs

Be sure to have image specific data available for server scripting by using a database, your content management system, or any other appropriate source.

You will at least need to provide the FPXSsrc parameter from your data source.

After collecting the image specific data from your data source you have to build a standard HTTP query string (RFC1738) containing the data using serverside scripting.

Parameters within the query have to be specified in the following form:

fsi.swf?Parameter1=value1&Parameter2=value2...
e.g. "fsi.swf?FPXSrc=image.fpx&FPXTilesX=4&FPXTilesY=3"

 Characters that are not URL-compatible such as "/" and "&" within the parameter values need to be URL-encoded.

Example – Generating FSI Queries (fetch_fpx_image.php)

```
// Retrieve FPX properties for picture 1 from table "FPX_Images"
$result = mysql_query('select FPXSrc,FPXHeight,FPXWidth,TilesX,TilesY
from FPX_Images where PictureID=1');

if ($result) {

    // Fetch SQL data
    $fpx_parameter=mysql_fetch_assoc($result);

    if ($fpx_parameter) {

        // RFC1738 parameter encoding
        foreach ($fpx_parameter as $fpx_key => $fpx_val) {
            $query_collection[] = $fpx_key.'='.$fpx_val;
        }

        // Make one large query string
        $fsi_query=implode('&', $query_collection);

        // Add Query to FSI Viewer URL
        $fsi_url='fsi.swf?'.$fsi_query;
    }
}
```

3. Creating the HTML-Code dynamically

Create a variable that contains the <object> and <embed> tag with all variables provided as script variables.

Replace all variables inside the template using serverside scripting.

You will usually need to replace the following 4 variables:

- **URL** (→2. Creating image specific URLs)
- **Width**
- **Height**
- **Backgroundcolor**

Example – HTML Template

```

<HTML>
<BODY>
. . .

<?php
include("fetch_fpx_image.php");

$fsi_url  = "fsi/fsi.swf?FPXSrc=image.fpx&FPXTilesx=4&FPXTilesY=3";
$width    = 320;
$height   = 300;
$bgcolor  = "#FFFFFF";

$template="
<OBJECT classid=\\"clsid:D27CDB6E-AE6D-11cf-96B8-444553540000\\" 
codebase=\\"http://download.macromedia.com/pub/shockwave/cabs/flash/swf
lash.cab#version=5,0,42,0\\" width=\\"$width\\" height=\\"$height\\">
<PARAM NAME=\\"movie\\" VALUE=\\"$fsi_url\\">
<PARAM NAME=\\"bgcolor\\" VALUE=\\"$bgcolor\\">
<PARAM NAME=\\"menu\\" VALUE=\\"false\\">
<EMBED TYPE=\\"application/x-shockwave-flash\\"
PLUGINSPAGE=\\"http://www.macromedia.com/shockwave/download/index.cgi?P
1_Prod_Version=ShockwaveFlash\\" SRC=\\"$fsi_url\\" WIDTH=\\"$width\\" 
HEIGHT=\\"$height\\" BGCOLOR=\\"$bgcolor\\" MENU=\\"false\\"></EMBED>
</OBJECT>";

echo $template;
?>

. .
</BODY>
</HTML>

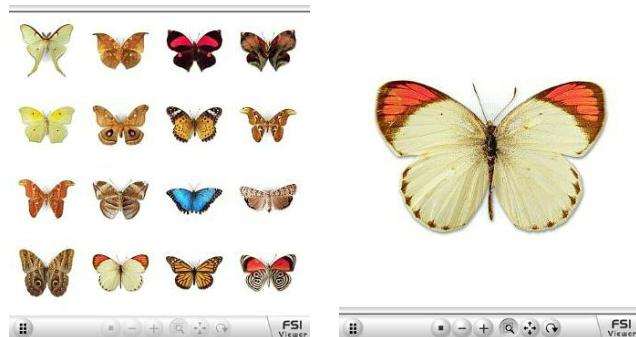
```


FSI Showcase

FSI Showcase is based on FSI Viewer technology.
All FSI Viewer parameters are valid for FSI Showcase, too.

In place of the `_default.fsi` file, which contains the general settings for the Viewer, there is a `showcase.fsi` file, which contains the general settings for all the images and in addition the configuration parameter for the Showcase. Furthermore the `showcase.fsi` file contains the list of images that are to be displayed in the showcase.

The integration of the Showcase into the HTML-source code takes place in the same way as for the FSI-Viewer, the only difference is that the file "`fsi_showcase.swf`" has to be integrated and that the parameter "**cfg**" refers to a Showcase configuration file.



Example - HTML integration of the showcase (without embed tag)

```
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swfl
ash.cab#version=6,0,0,0" width="[Width]" height="[Height]">
<PARAM NAME="movie" VALUE="[URL and parameter]">
<PARAM NAME="bgcolor" VALUE="[Background color]">
<PARAM NAME="menu" VALUE="false">
</OBJECT>
```

Explaining the variable parameters

[Width]	Width of the showcase in pixels or percent
[Height]	Height of the showcase in pixels or percent
[Background color]	background color, hexadecimal (e.g. #FFFFFF for white)
[URL and parameter]	The address to FSI Showcase and the parameter as a HTTP query. For information about these parameter please refer to the section " Showcase Parameters "

In contrast to the FSI Viewer, there is no Flash 5 support for FSI Showcase.

Creating the ShowCase Configuration File

The configuration file is created in XML-format and can be edited by any text editor. The basic structure with the 3 main groups is:

```
<fsi_parameter>
  <Plugins>
    <!-- List of plugins -->
    ...
  </Plugins>

  <Options>
    <!-- Configuration parameter -->
    ...
  </Options>

  <Images>
    <!-- List of images to be displayed -->
    ...
  </Images>
</fsi_parameter>
```

Defining the Images to be displayed

The <images> section contains the specifications of the images to be displayed. For every image the path to an image configuration file (as for FSI Viewer) and an optional short title are entered.

From Version 2 you can alternatively insert entire FSI configuration sections instead of defining individual configuration files. The format is identical to the FSI configuration files except for the encapsulating <fsi_parameter> tag which has to be omitted here. Additionally you have to omit the 'file' attribute in this case.

Using eRez imaging server version 3 or above you can aswell use automatically generated Showcase configurations for a specific image directory or a specific search query (→ Additional Parameters for automatic Showcase configurations).

The order of the images within the thumb bar is the same as the order within the <images> section.

Corresponding to FSI Viewer the parameter "**FSIBase**" is valid, which can be entered within the Showcase configuration file.

In this case the entered file paths are automatically extended by the value of the "**FSIBase**" parameter.

The filenames can be entered with or without the extension ".fsi".

In order to choose the images to be displayed at the start, add the parameter `selected="true"` within an `<image>`-Tag. This parameter has no effect if the `InitialImage` parameter has been defined.

Example - specification of FSI files

```
<fsi_parameter>
  <Options>
    ...
  </Options>

  <Images>
    <image file="fsi/pic1.fsi" label="Pic Nr.1" />
    <image file="fsi/pic2.fsi" label="Pic Nr.2" selected="true" />
  </Images>
</fsi_parameter>
```

Showcase Parameters

Following are the parameters that are exclusive to the FSI Showcase.

The Showcase parameters are entered within the `<Options>` section of the Showcase configuration file.

Please note that the parameter values must be entered in quotation marks.
The following types can be entered:

Type	Example
Number	"90"
String	"ZoomIn"
URL	"http://www.neptunelabs.com/"
Bool	either "0" / "1" or "true" / "false"
HexColor	"FF00FF"

MenuAlign

Description: Alignment of the menu bar

Syntax: String

Default: TL

Context: `<Options>`

Specifies the alignment of the navigation and menu bar in the Showcase.

Possible values:

TL	(top left)
TR	(top right)
BL	(bottom left)
BR	(bottom right)

ThumbWidth & ThumbHeight

Description:	Width and height of the thumbnails
Syntax:	Number (pixel)
Default:	64
Context:	<Options>

Possible values are between 32 and 128 pixels.

Depending on the setting, this value changes the size of the thumbnails. This specification is independent of the aspect ratio of the image. The image and the thumbnail ratio should correspond if borderless presentations are desired.

Example - Specification of the thumbnail size

```
<Options>
    <ThumbWidth value="100" />
    <ThumbHeight value="50" />
</Options>
```

InitialImage

Description:	Index of image selected on startup
Syntax:	Number
Default:	1
Context:	<Options>

Possible values are the index of the image or "none" if no image is to be activated at the start. This parameter superseeds a selected="true" parameter within the <images> section.

In connection with the parameter "**InitialView**", specific image segments can be displayed directly after the loading process of the FSI Showcase.

ThumbBarPosition	
Description:	Position of the thumbnail bar
Syntax:	String
Default:	L
Context:	<Options>

Specifies the position of the thumbnail bar within the Showcase. The bar is always situated on the outside margin and takes up either the whole height or the whole width of the Showcase.

Possible values:

L	(left)
R	(right)
T	(top)
B	(bottom)

ThumbBarSize	
Description:	Width or Height of the thumbnail bar
Syntax:	String or number
Default:	1 row
Context:	<Options>

Specifies the width/height of the thumbnail bar on startup.
The value can be specified in three ways:

- n rows** (in number of thumbnails)
- number** (in pixel)
- n %** (in percent of the entire Showcase width or height)

Example 1 – Thumbnail bar with 2 rows or columns of thumbnails

```
<Options>
  <ThumbBarSize value="2 rows" />
</Options>
```

Example 2 – Thumbnail bar with 25% of the total size

```
<Options>
  <ThumbBarSize value="25%" />
</Options>
```

If "100%" is entered the thumb bar covers the entire showcase.

ThumbBarColor	
Description:	Background color of the thumbnail bar
Syntax:	HexColor
Default:	DDDDDD
Context:	<Options>

Specifies the background color of the thumbnail bar.

ThumbBorderWidth	
Description:	Width of thumbnail borders
Syntax:	Number in pixels or "none"
Default:	3
Context:	<Options>

Determines the border thickness around every thumbnail.

Enter the value "**none**" for no border.

ThumbBorderColor	
Description:	Color of the 3D thumbnail border
Syntax:	HexColor
Default:	Same color as "ThumbBarColor"
Context:	<Options>

This specifies the color of the 3D border around the thumbnails.

If no parameter is entered the value of ThumbBarColor will be used.

ThumbBorderFlat	
Description:	Turns on 3D borders
Syntax:	Bool
Default:	False
Context:	<Options>

If this parameter is set to "true", the border around the thumbnail will be displayed flat.

NoThumbText	
Description:	Hide thumbnail labels
Syntax:	Bool
Default:	False
Context:	<Options>

If this parameter is set to "true", the text underneath the thumbnail won't be displayed.

ThumbTextColor	
Description:	Color of the thumbnail labels
Syntax:	HexColor
Default:	000000
Context:	<Options>

Specifies the text color of the thumbnail labels.

ThumbTextSize	
Description:	Font size of thumbnail labels
Syntax:	Number in pt
Default:	11
Context:	<Options>

Specifies the text size in pt (point).

FixedThumbBar	
Description:	Fixed size of the thumbnail bar
Syntax:	Bool
Default:	False
Context:	<Options>

If this option is set to 'true', the size of the thumb bar cannot be changed.
(The splitter bar cannot be dragged).

ViewerAlign	
Description:	Alignment of the image within the viewer
Syntax:	String
Default:	CC (centered horizontally and vertically)
Context:	<Options>

This parameter specifies the alignment of loaded images within the Showcase viewer. This value is always a two letter combination.

Possible values are any 2 character combinations of:

T (top)
B (bottom)
C (center)

and

L (left)
R (right)
C (center)

Example - align viewer top left

```
<Options>
  <ViewerAlign value="TL" />
</Options>
```

ThumbFading

ThumbFading	
Description:	Fade in loaded thumbnails
Syntax:	Bool
Default:	False
Context:	<Options>

If this parameter is set to "true", loaded thumbnails will be faded in and not displayed abruptly.

This parameter has a significant impact on the Showcase performance and might slow down the presentation on old computers.

ThumbMargin	
Description:	Margin between the thumbnails and the thumbnail bar
Syntax:	Number in pixels or "none"
Default:	3
Context:	<Options>

With the parameter you can define a transparent outer margin from which the thumbnails must hold a minimum distance.

ThumbSpacing	
Description:	Spacing between thumbnails
Syntax:	Number in pixels or "none"
Default:	3
Context:	<Options>

Set this value if you want to set a space between each individual thumbnail. The outer margin can be defined by ThumbMargin.

Additional FSI Parameters for FSI Showcase

The following parameters can be globally defined in the showcase.fsi file or can be defined inside the image specific configuration files.

ViewerBackgroundColor	
Description:	Background color of FSI Viewer
Syntax:	HexColor
Default:	FFFFFF
Context:	<Options>

Specifies the background color of the image.

This color is used for the background of the FSI Viewer and the background of the corresponding thumbnail.

Parameters for automatically generated Showcases

If you are using eRez imaging server version 3 or above with FSI Showcase you additionally use automatically generated showcase configurations for a specific directory on the server or according to a search query.
The generated showcase configuration contains all required data listing images in alphabetical order.

To modify showcase parameters (e.g. ThumbWidth) you can pass the parameters by HTTP query attached to the Showcase URL (→FSI Parameters).

Experienced users might additionally edit the server template files used to generate the showcase configuration. The corresponding files are located in the 'WEB-INF/templates/fsi/' directory of your eRez imaging server:

Filename	Description
showcase_config.xml	Contains the Showcase <Options> section
image_list.xml	Creates the <Images> section of the Showcase configuration

The following parameters have to be passed to the Showcase in order to use automatic showcase configurations:

Dir	
Description:	eRez image share (eRez only)
Syntax:	String
Default:	---
Context:	HTTP query

Specifies the image directory on the eRez Imaging Server the <Images> section will be created for, e.g. 'images/paintings/'

Query	
Description:	Search query (eRez server only)
Syntax:	String
Default:	---
Context:	HTTP query

Specifies a search query to be used to generate the showcase, e.g. "foo*". Can be used alternatively to the "dir" parameter.

Server	
Description:	Path to imaging server (eRez server only)
Syntax:	String
Default:	---
Context:	HTTP query

Specifies the URL of the eRez imaging server to generate the configuration.
E.g. 'http://mydomain.com/erez2/'

This parameter can be omitted if the Showcase has been installed to the default location on the eRez imaging server.

Please note: Loading configurations across domain boundaries will fail due to a security restriction of the Macromedia Flash™ plug-in.

Obsolete Parameters

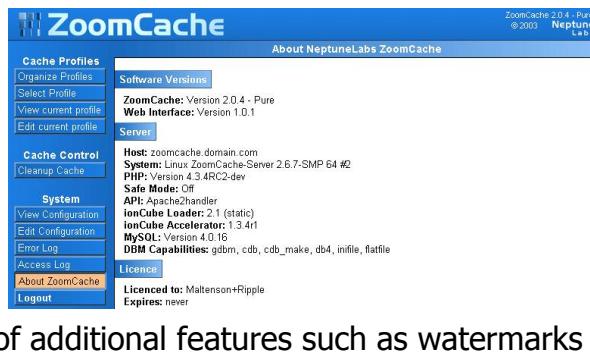
The following parameters are not available anymore:

ImageQuality since FSI Showcase 1.3.0, see Effects
MenuX and MenuY since FSI Showcase 2.0.0, see Plugin "NavExtension"
ThumbTextBold since FSI Showcase 2.0.0

NeptuneLabs ZoomCache

ZoomCache is a serverside application and is not a component of the FSI products Viewer and Showcase.

In addition to the disc caching functionality, ZoomCache enables support for Flash 5 plugins, automatic FPX dimension detection (→Retrieving Parameters Automatically) and the use of additional features such as watermarks or print & save functionality within FSI products and similar NeptuneLabs imaging server technology.



Requests to Imaging Servers are buffered by the ZoomCache. Frequently requested image data are - depending on the settings- stored in an area of the webservers hard disk and therefore don't have to be reproduced several times by the image server. The capacity of the ZoomCache is limited by the hard drive capacity of the server only.

Due to its straight structure the ZoomCache can be used simultaneously with several webservers and therefore provides many possibilities to distribute workload and to prevent imaging server down times.

With ZoomCache the requested image data can be delivered quicker and therefore is specifically recommended for highly frequented internet sites.

For detailed information about the installation of Zoomcache, please refer to the ZoomCache documentation.

The following parameters must be provided to enable ZoomCache access in FSI products:

- **ZoomCache**
- **ZoomCacheID**

If you don't run a ZoomCache yourself, you can receive the necessary data from your Zoom technology or ZoomCache Service partner.

For further information about ZoomCache, please contact your zoom technology partner or contact NeptuneLabs directly.

Plugin Reference

NeptuneLabs FSI Viewer Plugin Plugin Mousemodes

Plugin Target:

User interface

**Plugin Location:**

/plugins/mousemodes.swf

Function:

Integrates buttons into the menu bar to select the mouse mode.

Syntax:

```
<Plugin src="mousemodes" />
```

The "Mousemodes" plugin provides 3 buttons (2D images) or 4 buttons (3D objects) to select the current mouse mode.

Plugin Parameters

MenuOffset	
Description:	Indentation of the menu buttons
Syntax:	Number
Default:	0
Context:	Plugin Tag

Specifies the space in pixel left of the menu button(s) of the plugin.

Mode n

Description:	Removes the button for mouse mode <i>n</i> from the menu
--------------	--

Syntax:	Bool
---------	------

Default:	---
----------	-----

Context:	Plugin Tag
----------	------------

Provides the possibility to hide specific mouse mode buttons.

Example - Remove Drag-Button

```
<Plugin src="mousemodes" Model="false" />
```

The example above shows how to hide the button for mouse mode 1 (Drag).

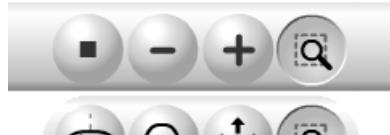
Mode n	Mouse Mode
Mode0	 Zoom
Mode1	 Drag
Mode2	 Rotate (X/Y Axis)
Mode3	 Rotate (Z Axis)

NeptuneLabs FSI Viewer Plugin

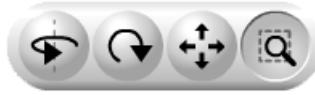
Plugin Mousemode Select

Plugin Target:

User interface

**Plugin Location:**

/plugins/mousemodeselect.swf

**Function:**

Integrates a button and a dropdown menu into the menu bar to select the mouse mode.

Syntax:

```
<Plugin src="mousemodeselect" />
```

The "Mousemode Select" plugin adds a button and a dropdown menu to the menu bar to select the mouse mode.

Some plugins (e.g. plugin "Measure") add additional mouse mode buttons to the menubar. If you include these plugins after including the MouseModes plugin, these additional buttons will be added to the MouseModeSelect submenu.



Plugin Parameters

MenuOffset

Description:	Indentation of the menu button
Syntax:	Number
Default:	0
Context:	Plugin Tag

Specifies the space in pixel left of the menu button of the plugin.

Mode n

Description:	Removes the button for mouse mode <i>n</i> from the menu
--------------	--

Syntax:	Bool
---------	------

Default:	---
----------	-----

Context:	Plugin attributes
----------	-------------------

Provides the possibility to hide specific mouse mode buttons in the dropdown menu.

Example - Remove Drag-Button

```
<Plugin src="mousemodes" Model="false" />
```

The example above shows how to hide the button for mouse mode 1 (Drag).

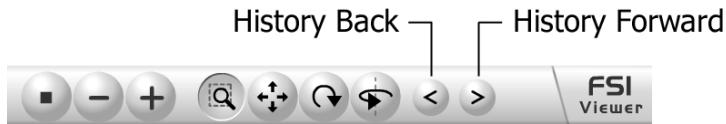
Mode n	Mouse Mode
Mode0	 Zoom
Mode1	 Drag
Mode2	 Rotate (X/Y Axis)
Mode3	 Rotate (Z Axis)

NeptuneLabs FSI Viewer Plugin

Plugin History

Plugin Target:

User interface

**Plugin Location:**

/plugins/history.swf

Function:

History functionality to jump to previously viewed image sections

Syntax:

```
<Plugin src="history" length="25" />
```

The "History" plugin extends the user interface by 2 buttons, "History Back" and "History Forward".

Using these two buttons the user is able to navigate through image sections he already visited.

Plugin Parameters**MenuOffset**

Description:	Indentation of the menu buttons
Syntax:	Number
Default:	0
Context:	Plugin Tag

Specifies the space in pixel left of the menu button(s) of the plugin.

Length

Description:	Length of the history list
Syntax:	Number
Default:	10
Context:	Plugin tag

The number of image sections that will be stored in the view history from 1 to 99. If the list exceeds the amount of entries defined by the "length" parameter, the first entry of the list will be removed.

Loop	
Description:	Loop the history list
Syntax:	Bool
Default:	false
Context:	Plugin tag

If this value is set to "true" the viewer will display the first viewed section when exceeding the last entry of the history and the last entry when stepping before the first entry of the history list.

Providing the default value "false", the history will not be looped, this is the history list stops at the first and the last position.

SmallButtons	
Description:	Size of menu buttons
Syntax:	Bool
Default:	True
Context:	Plugin tag

If this value is set to "false" the buttons of this plugin will be displayed in the default button size. Otherwise the buttons appear slightly smaller than other buttons.

NeptuneLabs FSI Viewer Plugin

Plugin ViewEdit

Plugin Target:

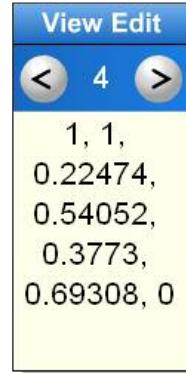
User interface, Authoring

Plugin Location:

/plugins/viewedit.swf

Function:

Displays the appropriate value for use with the "InitialView" parameter

**Syntax:**

```
<Plugin src="viewedit" />
```

The constantly updated textbox of the ViewEdit plugin displays the parameters of the current image section for use with the "**InitialView**" parameter. You can copy the value by selecting the text and choosing the "copy" command of the context menu.

The 7 concatenated values represent:

- SceneSet
- Scene
- Left
- Top
- Right
- Bottom
- Rotation (Z-Axis)

Please refer to the FSI parameter documentation for more information on the "**InitialView**" parameter.

Additional Image Information in Debug Window

The plugin outputs image specific information to the debug window.

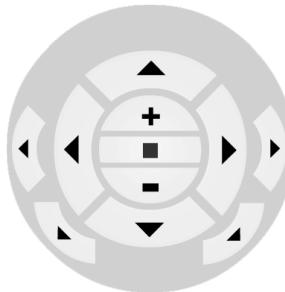
Below the headline '**ViewEdit Info**' you can find the current image tile size and the required viewer size to display the image inside the viewer without a margin.

NeptuneLabs FSI Viewer Plugin

Plugin NavExtension

Plugin Target:

User interface


Plugin Location:

/plugins/navextension.swf

Function:

Additional navigation control.

Syntax:

```
<Plugin src="navextension" visible="true" />
```

The "NavExtension" plugin adds a dragable navigation control to the FSI Viewer user interface that can be hidden and shown with a corresponding button in the menu bar. The control automatically adds buttons for Scenes and SceneSets depending on the image configuration.

Plugin Parameters

MenuOffset

Description:	Indentation of the menu button
Syntax:	Number
Default:	0
Context:	Plugin attributes

Specifies the space in pixel left of the menu button of the plugin.

Visible

Description:	Initial display state
Syntax:	Bool
Default:	false
Context:	Plugin attribute

Defines the initial visibility of the control.

X

Description:	Initial X position in pixel
Syntax:	Number
Default:	0
Context:	Plugin Tag

Y

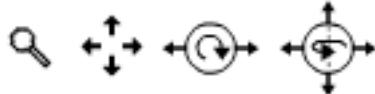
Description:	Initial Y position in pixel
Syntax:	Number
Default:	0
Context:	Plugin Tag

NeptuneLabs FSI Viewer Plugin

Plugin Software Cursor

Plugin Target:

User interface

**Plugin Location:**

/plugins/softwarecursor.swf

Function:

Adds a software cursor to the FSI Viewer.

Syntax:

```
<Plugin src="softwarecursor" />
```

The "Software Cursor" plugin adds a software cursor representing the current mouse mode (Zoom, Drag, Rotate-2D, Rotate 3D).

Plugin parameters

No parameters available.

NeptuneLabs FSI Viewer Plugin Plugin MouseWheel

Plugin Target:

User interface

Plugin Location:

/plugins/mousewheel.swf

Function:

Adds mouse wheel support to FSI Viewer (Zoom, Rotate)

Syntax:

```
<Plugin src="mousewheel" />
```

Requirements:

MSIE 6.0, JavaScript

The "MouseWheel" plugin enables the user to scroll or rotate an image using the mouse wheel.

Implementing MouseWheel support

1) Add a class-attribute of value "FSIViewer" to all FSI Viewer Object tags: E.g.

```
<object class="FSIViewer" classid= ...>
```

2) the following javascript to your HTML source:

JavaScript– MouseWheel

```
<script type="text/javascript">
<!--
FSIViewers=new Array();

function WheelInit() {
    if (!document.all) return;

    t = document.getElementsByTagName("object");
    if (t) for (count=0,i=0;i<t.length;i++){
        if (t[i].className=="FSIViewer") {
            FSIViewers[count++]=t[i];
            t[i].SetVariable("CatchMouseWheel", false);
        }
    }
}

document.onmousewheel = function () {
```

```

        for (i=0;i<FSIViewers.length;i++) {
            if (FSIViewers[i].GetVariable("CatchMouseWheel")=="true") {
                FSIViewers[i].SetVariable("WheelDelta",
event.wheelDelta);
                return false;
            }
        }
//-->
</script>

```

3) Add the function call "WheelInit();" to the onload event of the body tag:

E.g. <BODY onload="WheelInit();" ...>

4) Add the "MouseWheel" plugin to your _default.fsi or image specific .fsi file:

Example - Adding the Mousewheel plugin

```

<Plugins>
    <Plugin src="mousewheel" />
</Plugins>

```

MouseWheel Plugin Parameters

You can specify 4 different actions to take place when the user uses the mousewheel:

- **Zoom** (Zoom, Default)
- **Rotate** (Rotate Z-Axis)
- **Scene** (Rotate Y-Axis)
- **SceneSet** (Rotate X-Axis)

Default

Description:	Default mousewheel action
Syntax:	String
Default:	"Zoom"
Context:	Plugin Tag

Defines the default action of the mouse wheel, provided that no other action has been defined using the Mode[n] parameter.

Example

```
<Plugin src="mousewheel" default="Rotate" />
```

Mode[n]

Description: MouseWheel action for MouseMode *n*

Syntax: String

Default: Specified by "default" parameter or "Zoom"

Context: Plugin attribute

Defines the action of the mouse wheel when mouse mode *n* has been activated.

Example - Defining rotate as default action

```
<Plugin src="mousewheel" default="Rotate" Mode0="Rotate" />
```

The example above shows how to specify the mouse wheel action "Rotate" for the mouse mode "Zoom".

The possible values for "n" are as following:

- 0** MouseMode **Zoom**
- 1** MouseMode **Move**
- 2** MouseMode **Rotate**
- 3** MouseMode **Tilt**

NeptuneLabs FSI Viewer Plugin

Plugin Zoom Meter

Plugin Target:

User interface


Function:

Displays the current magnification.

Syntax:

```
<Plugin src="zoommeter" color="000000" />
```

The "ZoomMeter" plugin extends the survey window with a display of the current magnification.

Plugin Parameters

Color	
Description:	Text color
Syntax:	String
Default:	"000000" (black)
Context:	Plugin attribute

Defines the color of the text of the zoom display.

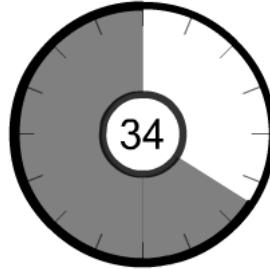
The color has to be defined as a 6-digit hexadecimal number.
(E.g. "FFFF00" for yellow).

NeptuneLabs FSI Viewer Plugin

Plugin ClockProgress

Plugin Target:

User interface

**Plugin Location:**

/plugins/clockprogress.swf

Function:

Replacement for default
progress bar

Syntax:

```
<Plugin src="clockprogress" />
```

The "ClockProgress" plugin replaces the default progress bar with a round progress indicator.

Plugin Parameters

The clockprogress plugin can be customized by adding attributes to the <plugin> tag.

E.g. `<Plugin src="clockprogress" alpha="20" />`

The following attributes can be used to customize the clockprogress plugin:

Alpha	
Description:	Opacity of progress indicator
Syntax:	Number
Default:	50
Context:	Plugin attributes

Defines the opacity of the progress indicator. Possible values range from 0 to 100.

0 transparent
100 opaque

Size

Description:	Size of progress indicator
Syntax:	Number
Default:	60
Context:	Plugin Tag

Defines the overall size of the progress indicator in pixel.

Color1

Description:	Color of the area representing the amount of pending data
Syntax:	HexColor
Default:	000000
Context:	Plugin attributes

A 6-digit hexadecimal number defining the color of the area representing the amount pending data.

Color2

Description:	Color of the area representing the amount of data already loaded
Syntax:	HexColor
Default:	FFFFFF
Context:	Plugin attributes

A 6-digit hexadecimal number defining the color of the area representing the amount data already loaded.

LineColor

Description:	Line color
Syntax:	HexColor
Default:	000000
Context:	Plugin attribute

A 6-digit hexadecimal number defining the color of the lines.

TextColor

Description:	Text color
Syntax:	HexColor
Default:	000000
Context:	Plugin attribute

A 6-digit hexadecimal number defining the color of the text.

posX

Description:	Horizontal Position
Syntax:	String / Number
Default:	Depends on MenuAlign parameter
Context:	Plugin attribute

Defines the horizontal position of the progress indicator.

Possible values:

C	Centered horizontally
Number > 0	Offset from left
Number < 0	Offset from right

posY

Description:	Vertical position
Syntax:	String / Number
Default:	Depends on MenuAlign parameter
Context:	Plugin attribute

Defines the vertical position of the progress indicator.

Possible values:

C	Centered vertically
Number > 0	Offset from top
Number < 0	Offset from bottom

NeptuneLabs FSI Viewer Plugin

Plugin Music

Plugin Target:

User interface

Plugin Location:

/plugins/music.swf

Function:

Adds streaming background music or sound to the FSI Viewer.

Syntax:

```
<Plugin src="music" song="music.mp3" autoplay="true" />
```

Requirements:

Flash MX or higher

The "Music" plugin adds a background sound or music to the FSI Viewer.

Additionally a button will be added to the menu bar to switch the music on or off.

Plugin Parameters

MenuOffset

Description:	Indentation of the menu button
Syntax:	Number
Default:	0
Context:	Plugin attribute

Specifies the space in pixel left of the menu button of the plugin.

AutoPlay

Description:	Start playing the sound on startup
Syntax:	Bool or String
Default:	False
Context:	Plugin attribute

Set the value to Boolean "**true**" to make the sound play on startup.

From version 1.3 of the plugin you can additionally set the value to "**onLoad**" to start the sound after image data has been completely loaded..

Song	
Description:	Path to an MPEG3 audio file (.mp3)
Syntax:	URL
Default:	---
Context:	Plugin attribute

Defines a relative path to an MPEG3 file (*.mp3) located in the "music" subdirectory of the "/fsi" folder.

Loop	
Description:	Loop / Play the sound once
Syntax:	Bool
Default:	false
Context:	Plugin attribute

Defines if the sound is being played once or in a continuous loop.

Volume	
Description:	Sound volume
Syntax:	Number (0-100)
Default:	---
Context:	Plugin attribute

Defines the volume of the sound from 0 (quiet) to 100 (maximum).

NeptuneLabs FSI Viewer Plugin

Plugin Magnifier

Plugin Target:

User interface


Plugin Location:

/plugins/magnifier.swf

Function:

Adds a magnifier to the user interface

Syntax:

```
<Plugin src="magnifier" visible="true" size="10" />
```

The "Magnifier" plugin adds a magnifier to the user interface that can be dragged using the mouse. Using the magnifier plugin does not cause additional data traffic, as the plugin enlarges already loaded image data by software.

The magnifier can be hidden and shown using a corresponding button in the menu bar. The level of magnification and the magnifier size can be defined by plugin parameters.

Plugin Parameters

Visible	
Description:	Initial state of visibility
Syntax:	Bool
Default:	false
Context:	Plugin attribute

Defines the initial visibility of the magnifier.

Size

Description:	Size of magnifier
Syntax:	Number
Default:	8
Context:	Plugin attribute

Defines the overall size of the magnifier. Possible values are between 4 and 16. Please note that greater values require more CPU power.

Magnification

Description:	Level of magnification
Syntax:	Number
Default:	2
Context:	Plugin attribute

Defines the level of magnification where 1 means no magnification, 2 means a magnification of 200% and so on. The maximum level of magnification is 8.

Reflections

Description:	Show or hide glass reflections
Syntax:	Bool
Default:	true
Context:	Plugin attribute

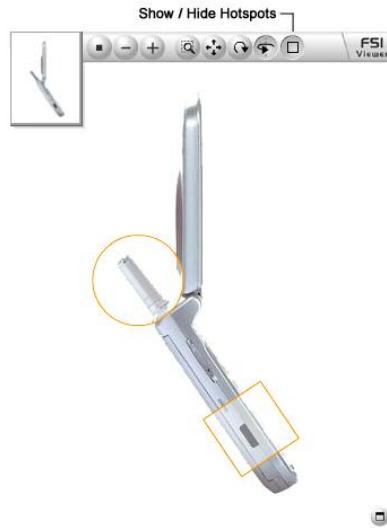
Show (true) or hide (false) glass reflections of the magnifier.

NeptuneLabs FSI Viewer Plugin

Plugin HotSpot

Plugin Target:

User Interface and Zoom Area


Plugin Location:

/plugins/hotspots.swf

Function:

By defining clickable areas (hotspots) the user is able to interact with the image by clicking on areas inside the zoomable image.

Syntax:

```
<Plugin src="hotspots" />
```

The Enterprise editions of FSI Viewer and FSI Showcase contain this plugin by default. For all other editions this plugin can be optionally obtained.

The "HotSpots" plugin adds an image map like functionality to the FSI Viewer. The plugin adds a button to the menubar which allows the user to show or hide the HotSpots.

The clickable areas are defined via XML inside the image specific *.fsi file and enable an increased interaction with the Viewer.

There are 4 different combinable actions that can be assigned to each hotspot:

- Display a Tooltip
- Zoom to the area defined by the hotspot
- Open a HTML page
- Restart the Viewer with a different image / configuration

Adding Hotspot Functionality to your Images

Integrating the Plugin

To integrate the HotSpot plugin into the viewer you have to add the following line to the <Plugins> section of either the _default.fsi file or to an image specific .fsi configuration file:

```
<Plugin src="hotspots" />
```

Defining the HotSpots Section

To define HotSpots for an image you have to add an XML-section to your image specific .fsi file. The definition syntax is similar to image maps for static images inside a HTML page.

Each HotSpot is being defined by a single XML node inside the <HotSpots> group.

The basic structure of a HotSpot definition is the following:

Example – HotSpot definition

```
<HotSpots visible="true" alpha="70">
  <circle spot="" tip="" url="" />
  <rect   spot="" tip="" url="" />
</HotSpots>
```

In contrast to other main groups like e.g. "<FPX>" you can assign attributes to the HotSpot group itself. Most of these attributes define the default behaviour of all included HotSpots so that you can omit these attributes in subsequent HotSpot nodes.

Global HotSpot Parameters

The attributes you can assign to the <HotSpots> group tag include:

Visible	
Description:	Initial visibility of the HotSpots
Syntax:	Bool
Default:	false
Context:	<HotSpots> group tag

Defines the initial visibility of HotSpots.

The HotSpot button state will be set accordingly.

Alpha	
Description:	Defines the opacity for all HotSpots
Syntax:	Number zwischen 0-100
Default:	100
Context:	<HotSpots> tag

Defines the opacity for all HotSpots from 0 (invisible) to 100 (opaque).

BaseUrl	
Description:	Prefix for relative HotSpot URLs
Syntax:	String
Default:	---
Context:	<HotSpots> group tag

Defines a prefix that will be applied to all HotSpots containing relative URLs.

This way you can omit e.g. the domain in URL-attributes of subsequent HotSpots.

Defining Default Attributes

The following attributes define default attributes to all HotSpot that do not contain a corresponding attribute itself.

E.g. defining a **DefaultTarget** of "**_self**" will open all hyperlinks in the frame the viewer resides in, if there is no individual **Target** attribute defined.

DefaultTarget

Description:	Default target for hyperlinks
Syntax:	String
Default:	_blank
Context:	<HotSpots> group tag

Defines the default target(frame) for HotSpot hyperlinks.

Valid parameters are "**_blank**", "**_self**", "**_top**", "**_parent**" and names of frames inside a HTML frameset.

DefaultMove

Description:	Zoom to HotSpot area by default
Syntax:	Bool
Default:	true
Context:	<HotSpots> group tag

Defines the default value for all subsequent HotSpots that do not contain the "**Move**" attribute.

DefaultSkew

Description:	Permit skewing of HotSpots
Syntax:	Bool
Default:	true
Context:	<HotSpots> tag

Defines the default value for all subsequent HotSpots that do not contain the "**Skew**" attribute.

DefaultColor

Description:	Default color of HotSpot borders
Syntax:	String
Default:	FF0000
Context:	<HotSpots> tag

Defines the default color of HotSpot borders.

The value has to be a 6 digit hexadecimal number like "FFFF00" for yellow or "0000FF" for blue.

DefaultFill

Description:	Fill the HotSpot area by default
Syntax:	Bool
Default:	true
Context:	<HotSpots> group tag

Defines the default value for all subsequent HotSpots that do not contain the "**Fill**" attribute.

If this value is set to false, all HotSpots will be shown as outlines by default.

Defining Individual HotSpots

Each HotSpot definition must at least contain the name of the HotSpot shape and the "**Spot**" attribute which defines the position of the HotSpot.
The tag name of each definition specifies the shape of the HotSpot.

Possible shapes are:

- **rect** (Square / Rectangle)
- **circle** (Circle / Ellipse)
- **star** (Star)

Example – HotSpot definition

```
<HotSpots visible="true" DefaultTarget="_blank"
BaseUrl="http://Domain/" >

  <circle spot="1, 1, 0.35842, 0.15383, 0.61261, 0.40802, 0"
tip="circle" />
  <rect spot="1, 10, 0.54314, 0.68446, 0.74036, 0.88168, -56"
tip="rectangle" url="rect.htm" />

</HotSpots>
```

Please refer to the chapter "**HotSpot Authoring Tips**" for usefull tips on how to create HotSpots.

HotSpot Parameters

The following attributes can be assigned to each HotSpot:

Spot	
Description:	Position of the HotSpot
Syntax:	String
Default:	---
Context:	HotSpot tag

Defines the position of the HotSpot.

The syntax of this parameter is equal to the syntax of the "**InitialView**" parameter of the FSI Viewer. All values have to be concatenated by commas.

The value consists of 7 numbers which represent
(from left to right):

SceneSet
Scene
Left
Top
Right
Bottom
Rotation (0 - 360 degrees)

It is recommended to use the "**ViewEdit**" plugin to obtain these values.
Please refer to the FSI Manual for more details on the ViewString format.

Tip	
Description:	Tooltip
Syntax:	String
Default:	---
Context:	HotSpot tag

Defines a string to be used for a tooltip when the user moves the cursor over the HotSpot.

Move	
Description:	Zoom to HotSpot area on click
Syntax:	Bool
Default:	false
Context:	HotSpot tag

Zoom to the image section covered by the HotSpot, if the user clicks the HotSpot. You can use the the "**DefaultMove**" parameter to change the default behaviour.

Skew	
Description:	Allow skewing of the HotSpot area
Syntax:	Bool
Default:	false
Context:	HotSpot tag

If this parameter is set to false the width of the hotspot area will equal the height of the HotSpot regardless of the values provided with the "**Spot**" parameter.

You might want to use this parameter to ensure that e.g. HotSpots defined with the <circle> tag look like circles instead of ellipses.

You can use the the "**DefaultSkew**" parameter to change the default behaviour.

Color	
Description:	Color of the HotSpot border
Syntax:	String
Default:	FF0000
Context:	HotSpot tag

Defines the color of the HotSpot border.

The value has to be a 6 digit hexadecimal number like "FFFF00" for yellow or "0000FF" for blue. You can use the the "**DefaultColor**" parameter to change the default border color.

Fill

Description:	Fill the HotSpot area
Syntax:	Bool
Default:	false
Context:	HotSpot tag

If this value is set to false, the HotSpot will be shown as an outline.

You can use the the "**DefaultFill**" parameter to change the default behaviour.

URL

Description:	Hyperlink of the HotSpot
Syntax:	URL
Default:	---
Context:	HotSpot tag

Defines a hyperlink to be opened if the user clicks the HotSpot.

The URL can be given relatively or absolutely.

The Target parameter (or respectively the "**DefaultTarget**" parameter) defines the targetframe for the hyperlink. Please refer to the "**BaseUrl**" parameter as well.

Target

Description:	Target frame for hyperlinks
Syntax:	String
Default:	_blank
Context:	HotSpot tag

Defines the targetframe for HotSpot-hyperlinks.

Valid parameters include "**_blank**", "**_self**", "**_top**", "**_parent**" and names of frames inside a HTML frameset.

Please refer to the "**DefaultTarget**" parameter for details on how to set a default target for hyperlinks.

CFG	
Description:	FSI parameters to be used on click
Syntax:	String (query)
Default:	---
Context:	HotSpot tag

If you define a CFG parameter for a HotSpot the viewer will be reinitialized with the given configuration if the user clicks the HotSpot.

This can be useful to switch from one image to another if the user clicks a HotSpot.

The syntax of the CFG parameter has to consist of FSI Parameters concatenated with the ampersand character (like a HTTP query).

Parameter1=value1&Parameter2=value2...

Example:

`cfg="cfg=image2&NoNav=1"`

Defining the parameter like this, the viewer would reinitialize using the configuration file "image2.fsi" providing the FSI parameter "NoNav" with a value of "true".

Please refer to the FSI Viewer manual for a list of all FSI Parameters and for details on how to create a query string that provides FSI parameters.

Hotspot Authoring Tips

The following section provides tips on how to obtain the string value required to define the "**Spot**" parameter of a HotSpot.

The Spot parameter consists of 7 numbers concatenated with commas and provides the SceneSet, the Scene, the image section (as a rectangle) and the rotation.

Example: 1, 10, 0.19056, 0.33579, 0.44862, 0.59385, 35

SceneSet **1**, Scene **10**, Rectangle [**0.19056, 0.33579, 0.44862, 0.59385**], rotation **35 °**

Although you can of course edit the "**Spot**" parameters manually, the following section describes two easy ways to obtain the parameter using the FSI Viewer.

Obtaining HotSpot positions

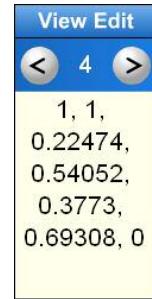
a) Using the ViewEdit plugin

The recommended way to obtain HotSpot positions (the value for the "**Spot**" parameter) is using the ViewEdit plugin. To use the ViewEdit plugin you have to include the following line in the <Plugins> section of either the _default.fsi or the image specific *.fsi file:

```
<Plugin src="viewedit" />
```

After integrating the Viewedit plugin you simply zoom, rotate and pan until the view is centered to the image section you want use as a HotSpot.

Copy the string displayed in the yellow textbox of the **ViewEdit** plugin and use the string as the value for the "**Spot**" parameter of your HotSpot.



Please refer to the ViewEdit documentation for more details on the ViewEdit plugin.

b) Using the Debug Window

Enable the debug mode of the FSI Viewer by adding the parameter

```
<Debug value="1" />
```

in either the _default.fsi file or the image specific *.fsi file.

Alternatively you can append "&debug=1" to the query used for the FSI Viewer inside the <object> and/or <embed> tag inside your HTML page.

After enabling the debug mode simply zoom, rotate and pan until the view is centered to the image section you want use as a HotSpot.

Press I to output the string representing the current image section in the debug window.



Select and copy the string in the debug window (see figure to the left) and use the string as the value for the "**Spot**" parameter of your HotSpot

HotSpot Z-Order

When defining HotSpots that overlap each other, you have to keep the z-order of the HotSpots in mind. The z-order of the HotSpots is determined by the sequence in which they are defined in the configuration file, from bottom to top.

As a rule of thumb you should define big HotSpot areas first to ensure that smaller HotSpots are not completely hidden underneath.

Error Messages

Please make sure to enable the debug mode when encountering errors !

Usually it is easy to locate the reason for an error by examining the output in the debug window or the step of the initialization process where the FSI Viewer stops.

Warning: NeptuneLabs ZoomCache required for Flash 5 Plugin

You may ignore this warning if you plan to use the FSI Viewer with Flash plugins version 6 and above only.

To use FSI Viewer with Flash plugins from version 5 NeptuneLabs ZoomCache is required.

Warning: ViewerWidth and ViewerHeight required

You may ignore this warning if you plan to use the FSI Viewer with Flash plugins version 6 and above only.

If you plan to use the FSI Viewer with Flash plugins prior to version 6 you have to adjust or add the FSI parameters ViewerWidth and ViewerHeight according to the dimension of the <object> and <embed> tag.

Error: FSI Viewer does not show up at all

Please check the parameters of the <object> and <embed> tag.
Make sure that the HTML code:

<PARAM NAME="movie" VALUE="**[URL and parameter]**">

contains the correct URL to the FSI Viewer file "fsi.swf".

Please make sure to have Flash plugin 5 or above installed.

Please make sure that all required files have been transferred in binary mode to your webserver.

If not, adjust the corresponding configuration options of your FTP client accordingly and upload all FSI Viewer files once again.

Error: Loading _default.fsi...failed

Please make sure that the file "_default.fsi" resides in the setup directory of your FSI Viewer.

Check the _default.fsi file for XML syntax errors.

Error: Loading *.fsi...failed

or

Error: FPXSrc undefined

Please make sure that the configuration file defined by the CFG parameter is valid.

Please make sure that the FSIBase parameter in the _default.fsi file points to the correct directory.

Please check the XML syntax of the corresponding FSI-file.

Error: The Viewer stops displaying the message "Loading Components:"

or

Error: The Viewer stops displaying the message "Core loaded."

Please make sure that all files have been uploaded to the location provided when ordering your FSI product.

Error: The Viewer stops displaying the message "Opening FPX: [...]"

Please check the given path to the source image file on the imaging server. Eventually adjust the parameters FPXSrc or FPXBase accordingly.

Error: Viewer stops displaying the message "Loading Plugin ..."

Please check the "Src" parameter of the specified plugin.

Make sure that the corresponding plugin file exists in the "/plugins" subdirectory of your setup directory of your webserver.

Error: The image appears entirely black or distorted

This might happen due to an error during the conversion of your image to the FPX format.

Please make sure that the source image has not been saved in grayscale mode and that it does not contain multiple alpha channels.

Be sure to save the image without FPX data compression.

Please try converting your image to RGB color mode and remove all alpha channels prior to FPX conversion.

Error: The Viewer displays multiple images at a time

You might be using an FPX containing multiple images without defining the parameters TilesX and TilesY or these parameters have been defined incorrectly. Please check the output of the Debug Window for the SceneSets setting.

Error: The Viewer displays a clipped image

You might have defined the parameters TilesX and TilesY for a 2D image.

Or

The parameters ViewerWidth and ViewerHeight do not match the corresponding settings in the <object> or <embed> tag using Flash plugin version 5.

Error: Keyboard commands not working

Using the keyboard commands require the FSI Viewer to have the input focus. Click anywhere inside the Viewer to pass the focus to the FSI Viewer.

Appendix

Example of a `_default.fsi` file

```
<fsi_parameter>
    <!-- This file contains default parameters.
    All parameters will be overwritten by additional .fsi files or query
    parameters. -->

    <Viewer>
        <Width      value="auto" />
        <Height     value="auto" />
    </Viewer>

    <Plugins>
        <Plugins src="mousemodes" />
    </Plugins>

    <Options>
        <FpxBase value="http://www.provider.com/fif="/" />
        <FSIBase value="../fsi/" />

        <ScenePreload value="true" />
        <MenuAlign value="BR" />
        <Animation value="BEST" />

        <ZoomCache      value="http://zoomcache.provider.com" />
        <ZoomCacheID   value="my_zoomcache_id" />
        <ZoomCache5Only value="true" />
    </Options>
</fsi_parameter>
```

Example of an image specific FSI configuration file

```
<fsi_parameter>

    <!-- required parameters for Flash 5 plugin -->
    <Viewer>
        <Width      value="330" />
        <Height     value="338" />
    </Viewer>

    <FPX>
        <!-- Src will be completed by FPXBase of _default.fsi -->
        <Src       value="3d_object.fpx" />
        <Width     value="8128" />
        <Height    value="9168" />
        <TilesX   value="4" />
        <TilesY   value="3" />
    </FPX>

    <Options>
        <InitialAction value="NextScene" />
        <InitialActionDelay value="3" />
        <MenuAlign value="TL" />
        <NoNav value="true" />
    </Options>
</fsi_parameter>
```

FSI file containing all available parameters

```

<fsi_parameter>
  <Viewer>
    <Width value="339" />
    <Height value="340" />
  </Viewer>

  <FPX>
    <Servertype value="ZIS" />
    <Src value="products/3d_object.fpx" />
    <Width value="11580" />
    <Height value="12800" />
    <TilesX value="4" />
    <TilesY value="8" />
  </FPX>

  <Plugins>
    <Plugins src="history" length="10" />
  </Plugins>

  <Options>
    <Debug value="true" />
    <Language value="english" />

    <NoNav value="true" />
    <MenuAlign value="TL" />
    <HideUI value="true" />

    <InitialView value="2, 11, 0.6185, 0.2769, 0.7912, 0.4496, 0" />
    <InitialAction value="NextScene" />
    <InitialActionDelay value="3" />
    <InitialMouseMode value="2" />

    <NoZoomLimit value="true" />
    <Animation value="BEST" />
    <AnimationSpeed value="80" />

    <Effects value="qlt=85&ftr=8" />

    <ZoomCache value="http://zoomcache.provider.com" />
    <ZoomCacheID value="my_zoomcache_id" />
    <ZoomCache5Only value="true" />

    <SceneSets value="17-32;1-16" />

    <NoSceneAnimation value="true" />
    <NoSetLoop value="true" />
    <NoSceneLoop value="true" />

    <ScenePreload value="false" />
    <NoImageBlend value="false" />
    <HandCursor value="false" />

  </Options>
  </fsi_parameter>

```

FSI Showcase configuration file containing all parameters available

```
<fsi_parameter>

    <Options>

        <Debug      value="true" />
        <FpxBase   value="http://127.0.0.1/fif="/" />
        <FSIBase   value="fsi/" />

    <!-- Showcase Parameters -->

        <!-- Layout -->
        <MenuAlign   value="TL" />
        <ThumbBarPosition value="R" />
        <ThumbWidth   value="64" />
        <ThumbHeight   value="64" />
        <FixedThumbBar  value="false" />
        <ThumbBarSize  value="1 row" />
        <ThumbMargin   value="6" />
        <ThumbSpacing   value="4" />

        <!-- Colors -->
        <ViewerBackgroundColor  value="FFFFFF" />
        <ThumbBarColor       value="CCCCCC" />
        <ThumbBorderColor     value="CCCCCC" />
        <ThumbTextColor       value="FFFFFF" />

        <!-- Text -->
        <ThumbTextSize      value="12" />
        <NoThumbText        value="false" />

        <!-- Misc -->
        <ThumbFading value="1" />
        <ViewerAlign value="CC" />

    <!--FSI Viewer Parameters -->

        <InitialView value="2, 11, 0.6185, 0.2769, 0.7912, 0.4496, 0" />
        <InitialAction      value="NextScene" />
        <InitialActionDelay  value="3" />
        <InitialMouseMode   value="2" />

        <NoZoomLimit       value="true" />

        <Animation         value="BEST" />
        <AnimationSpeed    value="80" />

        <Effects           value="qlt=85" />

        <ZoomCache          value="http://zoomcache.provider.com " />
        <ZoomCacheID        value="my_zoomcache_id" />
        <ZoomCache5Only     value="true" />
```

```
<SceneSets      value="17-32;1-16" />

<NoSceneAnimation value="true" />
<NoSetLoop      value="true" />
<NoSceneLoop     value="true" />
<NoNav          value="false" />
<ScenePreload    value="false" />
<NoImageBlend   value="false" />

</Options>

<Images>
  <image file="fsi/bild1.fsi" label="Bild Nr.1" />
  <image file="fsi/bild2.fsi" label="Bild Nr.2" />
  <image file="fsi/bild3.fsi" label="Bild Nr.3" />
  <image file="fsi/bild4.fsi" label="Bild Nr.4" />
  <image file="fsi/bild5.fsi" label="Bild Nr.5" />
</Images>

</fsi_parameter>
```


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FSI Viewer – FSI Showcase
Flash based Scaleable Image Viewer

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